UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,899	03/15/2001	Maarten Koning	11283/31	4891

30636   7590   02/08/2005

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EXAMINER
ALI, SYED J

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/808,899	KONING, MAARTEN
	Examiner	Art Unit	
	Syed J Ali	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>13 October 2004</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed October 13, 2004. Claims 1-28

are presented for examination.

2.   The text of those sections of Title 35, U.S. code not included in this office action can be

found in a prior office action.

Claim Rejections - 35 USC § 102

3.   **Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al.**

(USPN 6,282,561) (hereinafter Jones).

4.   As per claims 1-3, Jones teaches the invention as claimed, including a method

comprising:

assigning a resource to a holding task (col. 8 lines 41-58), wherein the resource may be a

mutual exclusion semaphore (col. 4 lines 35-47);

receiving a request by a higher priority task to take the resource, the higher priority task

having higher priority than the holding task (col. 11 lines 11-29);

determining whether the holding task has used the resource since the resource was

assigned to the holding task (col. 9 lines 60-62; col. 11 lines 30-67); and

releasing the resource when the higher priority task requests to take the resource and the

holding task has not used the resource since the resource was assigned to the holding task (col.

11 lines 11-29); and

assigning the resource to the higher priority task (col. 11 lines 11-29).

5.   As per claims 4-7, Jones teaches the invention as claimed, wherein the step of determining whether the holding task has executed since the semaphore was assigned to the holding task includes testing a variable, the variable indicative of whether the holding task has executed since the semaphore was assigned to the holding task (col. 11 lines 17-22), wherein the variable is associated with either the holding task or the semaphore (col. 2 lines 12-21); and

setting the variable, when the semaphore is assigned to the holding task, to indicate that the holding task has not executed since the semaphore was assigned to the holding task (col. 7 lines 38-50; col. 8 lines 41-58).

6.   As per claim 8, Jones teaches the invention as claimed, including assigning a second semaphore to a second holding task, the second semaphore being a mutual exclusion semaphore (col. 1 line 66 - col. 2 line 11);

receiving a request by a second higher priority task to take the semaphore, the second higher priority task having higher priority than the second holding task (col. 11 lines 11-29);

determining whether the second holding task has executed since the second semaphore was assigned to the second holding task (col. 9 lines 60-62; col. 11 lines 30-67); and

maintaining control of the second semaphore by the second holding task when the second higher priority task attempts to take the second semaphore and the second holding task has executed since the second semaphore was assigned to the second holding task (col. 8 lines 41-48).

7.   As per claims 9-13, Jones teaches the invention as claimed, wherein the step of

determining whether the second holding task has executed since the second semaphore was

assigned to the second holding task includes testing a second variable, the second variable

indicative of whether the second holding task has executed since receiving the second semaphore

(col. 9 lines 60-62; col. 11 lines 30-67); and

        setting the second variable to indicate that the second holding task has not executed when

the second semaphore is assigned to the second holding task and setting the second variable to

indicate that the second holding task has executed when the second holding task executes after

receiving the second semaphore (col. 7 lines 38-50; col. 8 lines 41-58),

        wherein the second variable is associated with either the second holding task or the

second semaphore (col. 2 lines 12-21).

8.   As per claims 14-15, Jones teaches the invention as claimed, including timing out a last

request for the semaphore by the holding task if the last request would have already timed out

had the holding task not received the semaphore by the time the semaphore is released (col. 12

lines 1-10) and adding an entry for the holding task to a wait queue (col. 5 lines 11-30).

9.   As per claims 16-26, Jones teaches the invention as claimed. All claim limitations in

claims 16-26 are encompassed in some form by claims 1-15. The discussion presented above for

those claim limitations form the basis for the rejection of claims 16-26 as well.

10.   As per claims 27-28, Jones teaches the invention as claimed, including a semaphore

control block associated with a semaphore, the semaphore control block comprising:

        a holding task identification variable, the holding task identification variable configured

to indicate a task that presently holds the semaphore with which the semaphore control block is

associated (col. 6 lines 4-9; col. 7 lines 38-50; col. 9 lines 46-51);

        a stealable variable, the stealable variable configured to indicate whether the semaphore

can be stolen from the task that presently holds the semaphore with which the semaphore control

block is associated, wherein the stealable variable is a one-bit flag (col. 9 lines 38-41, 60-62).

Response to Arguments

11.   Applicant's arguments with respect to claims 1-28 have been considered but are moot in

view of the new grounds of rejection.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The

examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Syed Ali
January 25, 2005

MENG-AI T AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100